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ABSTRACT

Career and Academic Resources in Bilingual Education (Project CARIBE) was a federally funded program that served 70 limited-English-speaking, native Spanish-speaking students, largely immigrants, in two Brooklyn (New York) high schools. Participating students received instruction in English as a Second Language (ESL), native language arts (NLA), mathematics, science, and social studies. Multicultural education, development opportunities for teaching staff, and parent involvement were also program components. The project met its objectives for increasing student familiarity with American culture and citizenship, career advisement, dropout prevention, staff development, and parent involvement. It failed to meet it objectives in ESL, NLA, and attendance. It partially met objectives in the content areas. Objectives for growth of cultural pride, attitudes toward school, and awareness of pupil needs and problems could not be assessed. Recommendations for program improvement include: assessment of reasons for lack of ESL skill growth; exploration of additional techniques for improving NLA achievement; administration of a standardized Spanish language exam to all NLA students; greater focus on teacher inservice preparation for mathematics instruction to this population; and better information gathering to assess attainment of objectives. (MSE)

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ED 370 379

# OREA Report

## Career And Academic Resources in Bilingual Education Program for High School Students (Project CARIBE)

Transitional Bilingual Education Grant T003A10116

FINAL EVALUATION REPORT

1992-93

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Career And Academic Resources
in Bilingual Education Program
for High School Students
(Project CARIBE)
Transitional Bilingual Education Grant T003A10116
FINAL EVALUATION REPORT
1992-93

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## EXECUTIVE SUMMARY

Career and Academic Resources in Bilingual Education Program For Hispanic High School Students (Project CARIBE) was an Elementary and Secondary Education Act (E.S.E.A.) Title VII-funded project in its second year of operation at John Jay High School and Bushwick High School in Brooklyn. In the year under review, Project CARIBE served a total of 270 Spanish-speaking students of limited English proficiency (LEP). This represented an increase of 24 students over the previous year and reflected an influx of immigrants from the Dominican Republic. Participating students received instruction in English as a second language (E.S.L.); native language arts (N.L.A.); and the content area subjects of mathematics, science, and social studies. Multicultural education was an integral part of programming.

Teachers of participating students had the opportunity to attend weekly staff development meetings. The project also reimbursed tuition for staff members taking courses at the college level.

Project CARIBE sought to establish an active parental component, which included E.S.L. classes, but found it difficult to stimulate participation.

Project CARIBE met its objectives for increasing students' familiarity with American culture and citizenship, career advisement, dropout prevention, staff development, and parental involvement. The project failed to meet its objectives in E.S.L., N.L.A., and attendance. It partially met its objective in the content areas. The Office of Research, Evaluation, and Assessment (OREA) could not evaluate the objectives for growth of cultural pride, attitude toward school, and awareness of pupil needs and problems, because the project did not provide the necessary data.

The conclusions, based on the findings of this evaluation, lead to the following recommendations to the project:

- Assess reasons for the lack of growth in participants' English language skills. Consider offering intensive E.S.L. at the literacy level, particularly for recent immigrants, and greater use of C.A.I.

- Explore additional techniques to increase students' acquisition of skills in Spanish N.L.A., possibly by initiating a peer tutoring component or using paraprofessionals to work with students during study halls or before and after school hours.

- Administer El Examen de Lectura en Español (ELE) to all program students enrolled in N.L.A classes.

- Devote staff development sessions specifically to the teaching of mathematics to the target students.

- Distribute and collect the Likert scale questionnaires developed by OREA to evaluate objectives for growth of cultural pride, attitude toward school, and growth of teachers' awareness of pupil needs and problems.

ACKNOWLEDGEMENTS

This report has been prepared by the Bilingual, Multicultural, and Early Childhood Evaluation Unit of the Office of Educational Research. Thanks are due to Ms. Jyoti Ranadive for collecting the data and writing the report.

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# I. INTRODUCTION

This report documents the Office of Research, Evaluation, and Assessment's (OREA's) evaluation of the Elementary and Secondary Education Act (E.S.E.A.) Title VII-funded project, Career and Academic Resources In Bilingual Education (Project CARIBE).

## PROJECT CONTEXT

The program operated at Bushwick and John Jay high schools in Brooklyn. The population of the surrounding community was made up primarily of recent immigrants from the Dominican Republic and other countries of the Caribbean. Most of the residents had low incomes. The student population at both schools for the year under review was similar in distribution to that of the surrounding community.

Of the 2,119 students who registered at Bushwick High School, 71.1 percent were Latino, 25.4 percent were African-American, 2.6 percent were Asian-American, and 0.8 percent was European-American*. Twenty-eight percent (590) of these students were of limited English proficiency (LEP), and over half (55 percent) came from low-income families.

Of the 3,256 students who registered at John Jay High School, 52.2 percent were Latino, 39.0 percent were African-American, 6.4 percent were European-American, and 2.4 percent were Asian-American. Fifteen percent (498) of these students were LEP, and 22.2 percent (723) came from low-income families.

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* Percentages do not add up to 100 due to rounding.

Bushwick and John Jay high schools were housed in buildings that dated to the early 1900s, but the interiors had been refurbished. Classrooms were bright. At Bushwick High School, however, halls were narrow, noisy, and crowded.

## STUDENT CHARACTERISTICS

Project CARIBE served Spanish-speaking LEP students in ninth through twelfth grade. (See Table 1.) Scores at or below the 40th percentile on the Language Assessment Battery (LAB) determined LEP status. Other student characteristics considered by the project were low native-language literacy, failure in two or more academic subjects, and willingness to participate as determined by personal interviews with the guidance counselor.

TABLE 1

Number of Students in Project CARIBE, by Grade

| High School | 9 | 10 | 11 | 12 | Total |
|---|---|---|---|---|---|
| Bushwick | 70 | 47 | 7 | 1 | 125 |
| John Jay | 24 | 68 | 41 | 12 | 145 |

The project served a total of 270 students; male students numbered 161 (59.6 percent) and female 109 (40.4 percent). Almost one-half (48.2 percent) of participants were born in the Dominican Republic. (See Table 2.) Most of the other students came from Mexico, Puerto Rico, Ecuador, and the United States. The

project population came largely from low-income families; 73.0 percent were eligible for free lunch.

TABLE 2

Students' Countries of Origin

| Country | Number of Students |
|---|---|
| Dominican Republic | 130 |
| Mexico | 38 |
| Puerto Rico | 30 |
| Ecuador | 22 |
| United States | 19 |
| El Salvador | 7 |
| Honduras | 7 |
| Colombia | 6 |
| Costa Rica | 2 |
| Guatemala | 2 |
| Peru | 2 |
| Chile | 1 |
| Guyana | 1 |
| Nicaragua | 1 |
| Panama | 1 |
| Cuba | 1 |
| Total | 270 |

Needs Assessment

Before instituting the project, John Jay and Bushwick high schools conducted an exhaustive needs assessment of the targeted students and their families. The data obtained from these studies indicated three primary needs: (1) to provide LEP students with intensive English and native language instruction and support services to improve their school performance; (2) to instill in students pride and respect for American traditions and for their native heritage; and (3) to provide guidance and encouragement to students to acquire practical skills for careers.

PROJECT OBJECTIVES

Student Objectives

- By June 1993, 70 percent of target students will demonstrate a significant improvement at the .05 level in English language proficiency as indicated by improvement on their Language Assessment Battery (LAB) scores.
- By June l993, 75 percent of the Spanish dominant participants will demonstrate a significant increase in Spanish language achievement as indicated by significant improvement at the .05 level of statistical significance on El Examen de Lectura en Español (ELE).
- By June 1993, at least 70 percent of targeted students will score at or above the passing criterion of 65 in the content area subjects of mathematics, science, and social studies.
- The program will organize at least two field trips for the target students at the school sites to historical museums, the United Nations, the White House, etc., to increase their familiarity with American culture and citizenship.
- Seventy-five percent of targeted students will demonstrate an improvement in attitude toward cultural heritage, as measured by a project-developed Likert scale, and cultural events, activities, or trips.

- Seventy-five percent of all target students will demonstrate an improvement in attitude toward school as indicated by results on a 5-point scale inventory to measure interest in continuing education beyond their present grade, tabulating growth from pre-to-post gaining one scale p[illegible]or more.

- All graduating students will meet the bilingual career specialists, bilingual grade advisors, or bilingual guidance counselor for advisement at least three times during the school year.

- The program will organize at least one conference for the students in which representatives of business and industry will present information on career options and skill requirements.

- As a result of participating in the program, students will have a lower dropout rate than non-program students'.

- As result of participating in the program, students' attendance will be significantly higher than that of mainstream students'.

Staff Development Objectives

- Eighty percent of the staff in the program will demonstrate an increase in awareness of pupil needs.

- Fifty percent of program staff will enroll in at least one university course each semester.

Parental Involvement Objectives

- The proportion of program students' parents who participate in Open School Day/Evening will be equal to or greater than the proportion of mainstream students' parents who participate in this activity.

PROJECT IMPLEMENTATION

During the 1992-93 school year, Project CARIBE's main goal was to provide services to LEP students who were limited in their ability to read and write Spanish. The project also provided basic skills, career development, and

pre-occupational training. Participating high schools offered English as a second language (E.S.L) at literacy, beginning, intermediate, and advanced levels, and native language arts (N.L.A.) at literacy to advanced level at both sites. John Jay High School, however, did not offer N.L.A. at the literacy level in the fall.

Project students participated in Multicultural Night, submitted articles to the project's newsletter, and also took part in contests and a conference.

The project offered in-service staff development activities such as conferences, seminars, and workshops on teaching strategies and techniques, lesson planning, and bilingual curriculum development. Workshops and multicultural conferences at both project sites were aimed at sensitizing staff to cultural differences and the needs of bilingual students. The project also provided reimbursement to staff for college credits.

John Jay High School offered regular E.S.L. classes for parents of participating students. Bushwick High School offered E.S.L. classes for parents in the summer only.

Materials, Methods, and Techniques

At Bushwick High School, students received content area instruction five periods a week in their native language. At John Jay High School, students received content area instruction five periods per week in their native language in the fall, and five periods per week in English supplemented by their native language in the spring. Teachers of participating students used a wide range of strategies and techniques including peer tutoring and individual tutoring sessions by the resource teacher. A

variety of learning styles were used to assist students: cooperative learning, the mastery approach, an interdisciplinary approach between content areas, E.S.L., and student-produced newsletters. At Bushwick High School, computer-assisted instruction (C.A.I.) was well developed and students had access to several computers as well as a great deal of software. For a list of instructional materials used in the project, please see Appendix A.

Capacity Building

Tax levy monies will fund textbooks, supplies, field trips, and cultural and career development activities in 1993-94 of the project. John Jay High School will assume 75 percent of the cost of the resource teacher position, 20 percent more than in the year under review.

Staff Qualifications

Title VII staff. The project director was partly funded by Title VII. The project did not provide information on the other source of funding. One resource teacher, a resource specialist, one paraprofessional, and a word processor were fully funded by Title VII. The project director had teaching proficiency in Haitian, and communicative proficiency in Spanish.* The resource teacher, resource specialist, and the paraprofessional were native speakers of Spanish. The word processor had

*Teaching proficiency (TP) is defined as the ability to use LEP students' native language in teaching arts or other academic subjects. Communicative proficiency (CP) is defined as a non-native speaker's basic ability to communicate and interact with students in their native language.

communicative proficiency in Haitian. For a description of their degrees and language competencies, see Table 3.

The project director's responsibilities included supervision and coordination of activities, staff selection and training, and provision of evaluation data. The resource specialist's responsibilities were to assist classroom teachers in the development and implementation of instructional activities, provide in-service training to teachers, help plan activities for parents of participating students, and select instructional material.

TABLE 3

Project Staff Qualifications

| Position Title | Degree(s) | Language Competence |
|---|---|---|
| Project Director | M.A. | Haitian (TP)<br>Spanish (CP) |
| Resource Teacher | M.A. | Spanish (TP) |
| Paraprofessional | H.S. | Spanish (CP) |
| Word processor | H.S. | Haitian (CP) |

Other staff. Tax-levy funds paid the salaries of 18 teachers, one assistant principal (A.P.), and a bilingual coordinator at Bushwick High School. Twelve of the teachers held master's degrees, and the remaining six held bachelor's degrees. One of these teachers had training in bilingual education, and six were certified in E.S.L. All held high school certification in the subject area they taught.

At John Jay High School, 18 teachers held master's degrees, and the remaining nine held bachelor's degrees. Twenty-four teachers had certification in the

subject areas they taught. Two teachers who were certified in Spanish and Italian, taught E.S.L. and French.

TABLE 4

Qualifications of Other Staff Serving Project Students

| Position Title | Degree(s) | Language Competence |
|---|---|---|
| 1 Assistant Principal | M.A. | Spanish |
| 1 Bilingual Coordinator | M.A. | Spanish |
| 45 Teachers | 30 M.A.<br>15 B.A. | 35 Spanish (TP)<br>2 Chinese (TP)<br>6 Spanish (CP)<br>2 French (CP) |
| 3 Paraprofessionals | | 3 Spanish (CP) |

Staff development. Seven teachers received tuition assistance toward college courses in counseling, education, and technology for LEP students. Teachers of program students participated in a series of weekly and monthly meetings sponsored jointly by the two high schools, the Division of Bilingual Education (D.B.E.), and Project CARIBE. Staff members also attended the National Association for Bilingual Education (NABE), the New York State Association for Bilingual Education (SABE) and the New York City Association for Secondary Curriculum Development (N.Y.C.A.S.C.D.) conferences. Workshops focused on E.S.L. and N.L.A. methodologies, current trends and issues, multicultural education, interdisciplinary education, and classroom management. The project provided training on teaching

strategies and lesson planning techniques. Teachers could borrow textbooks and materials for classroom use from the resource room. The project disseminated pedagogical articles addressing issues of bilingual students and made available instructional materials published by the Office of High School Bilingual/E.S.L. Programs. Bushwick High School provided training to new teachers through a mentor program sponsored by Hunter College of the City University of New York (CUNY). John Jay High School held several conferences and developed a literacy program for the interdisciplinary teaching of E.S.L., Spanish, and mathematics.

Instructional Time Spent on Particular Tasks

See Appendix B for examples of class schedules.

Length of Time Participants Received Instruction

Students had a mean of 7.5 years (s.d.=1.5) of education in a non-English-speaking school system and 2.7 years (s.d.=1.5) of education in the United States. The median time students participated in Project CARIBE was 20 months.

Activities to Improve Pre-referral Evaluation Procedures for Exceptional Children

Teachers referred students thought to be in need of special education services to the project resource teacher, who discussed the case with either the A.P. of the Bilingual Program or the guidance counselor. If necessary, the student was then referred to the School-Based Support Team (S.B.S.T.) for further evaluation. The guidance counselor, the social worker, and the school psychologist on the S.B.S.T. were bilingual.

The program does not target gifted and talented students.

Instructional Services for Students with Special Needs

At Bushwick High School, the project offered C.A.I. before or during school hours to students having difficulty in classes. Project staff gave gifted and talented students opportunities to become peer tutors, service aides, and interpreters. They encouraged talented students to participate in the annual International Festival. Students with writing skills worked on the project newsletter and the school literary magazine in various capacities.

PARENT AND COMMUNITY INVOLVEMENT ACTIVITIES

The project sponsored a variety of parental development activities, which included E.S.L. classes, field trips, and a Cultural Extravaganza. Parents of project students participated in Open School Day/Evening and a Parent Advisory Council (PAC). The project provided guidance and assistance to parents at regular meetings.

## II. EVALUATION METHODOLOGY

### EVALUATION DESIGN

#### Project Group's Educational Progress as Compared to That of an Appropriate Non-Project Group

OREA used a gap reduction design to evaluate the effect of language instruction on project students' performance on standardized tests. Because of the difficulty in finding a valid comparison group, OREA used instead the groups on which the tests were normed. Test scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.1. It is assumed that the norm group has a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains are attributable to project services.

#### Applicability of Conclusions to All Persons Served by Project

Data were collected from all participating students for whom there were pre- and posttest scores. (There were no pretest data on students who entered the program late; therefore, posttest data for them will serve as pretest data for the following year.) Instruments used to measure educational progress were appropriate for the students involved. The LAB and El Examen de Lectura en Español (ELE) are used throughout New York City to assess the growth of English and Spanish skills in populations similar to those served by Project CARIBE.

INSTRUMENTS OF MEASUREMENT

OREA compared pre- and posttest scores on the LAB to assess the E.S.L. objective and the ELE to assess the N.L.A. objective. The content area objective in mathematics, science, and social studies was assessed through course grades, as specified.

All students were tested at the appropriate grade level. The language of the LAB and ELE was determined by the test itself.

According to the publishers' test manuals, all standardized tests used to gauge project students' progress are valid and reliable. Evidence supporting both content and construct validity is available for the LAB. Content validity is confirmed by an item-objective match and includes grade-by-grade item difficulties, correlations between subtests, and the relationship between the performance of students who are native speakers of English and students who are LEP. To support reliability, the Kuder-Richardson Formula 20 (KR20) coefficients and standard errors of measurement (SEM) are reported by grade and by form for each subtest and total test. Grade reliability coefficients, based on the performance of LEP students on the English version, ranged from .88 to .96 for individual subtests and from .95 to .98 for the total test.

The ELE was prepared by New York City educators who were native speakers of Spanish and represented several Latino linguistic and cultural groups. The ELE was administered in two forms to all New York City students who were receiving language arts instruction in Spanish. For form 1, the grade reliability coefficients

ranged from .94 to .96. Comparable data for form 2 will be generated as soon as possible after its administration in the spring of 1993. Items on the test were grade-specific. Construct validity is evidenced by grade-to-grade decreases in item difficulty within level. This characteristic reflects the acquisition of increased amounts of the underlying construct (reading proficiency) as students progress through the grades.

To assess the growth of cultural pride, OREA developed a Likert-type questionnaire which project personnel were to administer to all participating students. (See Appendix C.)

To evaluate the growth of awareness of pupil needs and problems, OREA developed a Likert-type questionnaire and requested that all staff involved with project students complete them. (See Appendix C.)

## DATA COLLECTION AND ANALYSIS

### Data Collection

To gather qualitative data, an OREA evaluation consultant carried out on-site and telephone interviews with the project director several times during the school year and also observed two classes at Bushwick High School and two at John Jay High School. On each visit, the consultant interviewed the project director. The project evaluator collected the data and prepared the final evaluation report in accordance with the New York State E.S.E.A. Title VII Bilingual Education Final Evaluation Report format, which was adapted from a checklist developed by the staff of the Evaluation Assistance Center (EAC) East in consultation with the Office of Bilingual Education and Minority Language Affairs (OBEMLA).

Proper Administration of Instruments

Qualified personnel received training in testing procedures and administered the tests. Test administrators followed guidelines set forth in the manuals accompanying standardized tests. Time limits for subtests were adhered to; directions were given exactly as presented in the manual.

Testing at Twelve-Month Intervals

Standardized tests were given at 12-month intervals, following published norming dates.

Data Analysis

Accurate scoring and transcription of results. Scoring, score conversions, and data processing were accomplished electronically by the Scan Center of the Board of Education of the City of New York. Data provided by the Scan Center were analyzed in the Bilingual, Multicultural, and Early Childhood Evaluation Unit of OREA. Data collectors, processors, and analysts were unbiased and had no vested interest in the success of the project.

Use of analyses and reporting procedures appropriate for obtained data. To determine whether the anticipated percentage of students demonstrated pretest/posttest gains on the LAB and ELE, OREA computed the percentages of students that achieved higher posttest than pretest scores. To assess the significance of students' achievement in English and Spanish, OREA computed a correlated *t*-test on the LAB and ELE N.C.E. scores. The *t*-test determined whether

the difference between the pre- and posttest scores was significantly greater than would be expected from chance variation alone.

The only possible threat to the validity of any of the above instruments might be that LAB norms were based on the performance of English proficient (EP) rather than LEP students. Since OREA was examining gains, however, this threat was inconsequential—the choice of norming groups should not affect the existence of gains.

## III. FINDINGS

### PARTICIPANTS' EDUCATIONAL PROGRESS

Project CARIBE carried out all instructional activities specified in its original design.

#### Participants' Progress in English

An OREA consultant observed an advanced level E.S.L. class at both Bushwick High School and at John Jay High School.

At Bushwick High School, the class was teacher-directed. The teacher had excellent rapport with her class. The teacher had directed the students to bring in a news item which she requested they read aloud. In the process of doing so, they worked on grammar and vocabulary and became familiar with current issues. The homework assignment was on the Industrial Revolution in America, a lesson in the textbook. It was evident that the students were very alert, attentive, and eager to participate.

At John Jay High School, the teacher used cooperative learning and group-based activity. She presented an excerpt from the play *West Side Story* and distributed a worksheet with words, phrases, and idioms underlined. The teacher asked the students to explain the meanings of and construct sentences with the underlined items. She divided the students into small groups to write an imaginary dialogue between two or three characters. She then asked them to read their work aloud. Some of the students participated actively and asked questions. There was no paraprofessional present in either classroom.

The evaluation objective for E.S.L. was:

- By June 1993, 70 percent of the target students will demonstrate significant improvement at .05 level in English language proficiency as indicated by improvement on their Language Assessment Battery scores.

There were complete pre- and posttest scores on the LAB for 134 students from grades nine through twelve. (See Table 4.) The mean gain of 2.9 N.C.E.s (s.d.=11.0) was statistically significant at Bushwick High School and overall, but was less than the gain shown the previous year (3.3 N.C.E.s).

Only 37.3 percent of these students demonstrated an increase from pre- to posttest scores. This was less than the 40.4 percent of students who showed a gain last year, and lower than the required 70 percent.

The project did not meet its objective for English as a second language. Last year, the project did not meet its E.S.L. objective either.

Participants' Progress In Native Language Arts

Project CARIBE offered N.L.A. at literacy, beginning, intermediate, and advanced levels at both sites. Students at the literacy level received ten periods per week of instruction. Students at the beginning to advanced levels received five periods per week. Teachers of participating students used a wide range of strategies and techniques, including peer tutoring and individual tutoring sessions by the resource specialist. Monthly contests were held to encourage students to participate in essay- and poetry-writing. Students also participated in spelling bees and an oratory contest.

TABLE 5

Pretest/Posttest N.C.E. Differences on the
Language Assessment Battery (LAB), by Site

| High School | Total number of project students | Number of students for whom data were available | Pretest | | Posttest | | Difference | | *t* value |
|---|---|---|---|---|---|---|---|---|---|
| | | | Mean | S.D. | Mean | S.D. | Mean | S.D. | |
| John Jay | 145 | 82 | 8.5 | 10.1 | 9.6 | 12.0 | 1.2 | 8.6 | 1.23 |
| Bushwick | 125 | 52 | 8.0 | 9.8 | 13.6 | 13.7 | 5.6 | 13.7 | 2.93* |
| Total | 270 | 134 | 8.3 | 10.0 | 11.2 | 12.8 | 2.9 | 11.0 | 3.02* |

*$p<.05$

- Students at Bushwick High School had gains of over 5 N.C.E.s on the LAB, and showed a significant improvement. Gains made by students at John Jay High School were smaller.

The evaluation objective for N.L.A. was:

- By June 1993, 75 percent of Spanish dominant participants will demonstrate a significant increase in Spanish language achievement as indicated by significant improvement at the .05 level of statistical significance on the El Examen de Lectura en Español (ELE).

Of the 270 students registered for N.L.A. in the fall semester, 87.3 percent passed; of the 242 students registered in the spring, 76.6 percent passed. While these were good passing rates, the objective called for evaluation by the ELE. There were only 35 complete pre- and posttest scores on the ELE, however, and all of them were from Bushwick High School. (See Table 5.) These represented only 13 percent of the students. Students showed a mean loss of 3.5 N.C.E.s (s.d.=15.9).

Only 31.4 percent of the 35 students showed an increase from pre- to posttest scores. This was less than the 42.9 percent who demonstrated an increase in the previous year.

The project did not meet its objective for native language arts. It also failed to meet this objective last year. It must be recognized, however, that it may be impossible to evaluate the N.L.A. objective based on the small number of matched test scores.

LEP Participants' Academic Achievement

Students received content area instruction five periods a week in their native language at Bushwick High School both semesters and at John Jay High School in the fall. John Jay High School offered the content area in English supplemented by Spanish in the spring. The teachers used a wide array of strategies and techniques,

TABLE 6

Pretest/Posttest N.C.E. Differences on the
El Examen de Lectura en Español (ELE), by Site

| High School | Total number of project students | Number of students for whom data were available | Pretest | | Posttest | | Difference | | *t* value |
|---|---|---|---|---|---|---|---|---|---|
| | | | Mean | S.D. | Mean | S.D. | Mean | S.D. | |
| John Jay | 145 | 0 | -- | -- | -- | -- | -- | -- | -- |
| Bushwick | 125 | 35 | 50.5 | 18.8 | 47.0 | 4.4 | -3.5 | 15.9 | -1.29 |
| Total | 270 | 35 | 50.5 | 18.8 | 47.0 | 4.4 | -3.5 | 15.9 | -1.29 |

*$p<.05$

- ELE scores were available from only 13 percent of project students and they showed a mean loss.

including cooperative learning, an interdisciplinary approach between the content areas and E.S.L., and C.A.I. at Bushwick High School. Graduate students from New York University provided tutoring at Bushwick High School.

An OREA evaluation consultant observed a content area class at each site. Both classes were taught in Spanish. At Bushwick High School, the class was in mathematics and the teacher spent most of the time explaining the classification of angles, stopping periodically to ask the students if they had understood. A paraprofessional assisted the teacher in distributing a mathematics kit and photocopied pages with problems.

At John Jay High School, the class was in social studies. The teacher presented a lesson on exchange rates. He distributed coins from different countries, along with a newspaper written in Spanish. The teacher asked students to match the currency to the country, then convert the currency into dollars. Through this process students learned something about economics, foreign exchange, trade, and international debt. The students were enthusiastic and in their eagerness, often responded out of turn.

The content area objective was:

- By June 1993, at least 70 percent of all targeted students will score at or above the passing criterion of 65 in the content area subjects of mathematics, science, and social studies.

In science in the fall, and in social studies both semesters, at least 70 percent of the students received passing grades. (See Table 7.)

Project CARIBE partially met its objective for the content area subjects of mathematics, science, social studies, as evaluated by final course grades. The project partially met this objective in the previous year.

TABLE 7

Passing Grades in Content Area Courses, by Site

| Content Area Subject | Fall 1992 | | Spring 1993 | |
|---|---|---|---|---|
| | Number of students for whom data were reported | Percent Passing | Number of students for whom data were reported | Percent Passing |
| Mathematics | 157 | 54.8 | 149 | 57.0 |
| Science | 114 | 80.7 | 99 | 67.7 |
| Social Studies | 164 | 72.0 | 147 | 72.8 |

- Students met the project objective in science and social studies in both semesters.

## FORMER PARTICIPANTS' ACADEMIC PROGRESS IN ENGLISH LANGUAGE CLASSROOMS

No students were mainstreamed at the end of the school year previous to that under review.

## OVERALL EDUCATIONAL PROGRESS ACHIEVED THROUGH PROJECT

### American Culture and Citizenship

The project proposed one objective to increase familiarity with American culture and citizenship:

- The program will organize at least two field trips for the target students at the school sites to historical museums, the United Nations, the White House, etc., to increase their familiarity with American culture and citizenship.

Project CARIBE provided a number of field trips to acquaint participants with various aspects of life in the United States. Students at Bushwick High School visited the American Museum of Natural History, the Planetarium, the United Nations, Washington D.C., and Philadelphia. At the end of each visit, students made drawings of their experiences. These were displayed on the bulletin board in the project resource center at Bushwick High School. Students at John Jay High School visited Philadelphia, Ellis Island, the Statue of Liberty, and the United Nations. They also took a Circle Line trip around Manhattan.

Project CARIBE met its objective for increasing students familiarity with American culture and citizenship as it had done last year.

Cultural Pride

The project proposed one objective for growth in cultural pride:

- Seventy-five percent of targeted students will demonstrate an improvement in attitude toward cultural heritage, as measured by a project-developed Likert scale, and cultural events, activities, or trips.

To improve their attitude toward cultural heritage, participants went to El Repertorio Español to see Spanish plays. To promote cultural awareness, students celebrated Pan-American Day, Puerto Rican Discovery Day, and Dominican Independence Day. In January, Fiesta de Reyes was celebrated and project students and parents enjoyed poetry reading and an awards presentation for the Christmas Poster Contest. The Resource Room maintained and updated a cultural bulletin

board. A bilingual newsletter which included students' poems and essays was published.

As in the previous year, Project CARIBE did not provide OREA with any completed Likert scales. OREA, therefore, was unable to evaluate the objective for growth in cultural pride.

Attitude Toward School

- Seventy-five percent of all target students will demonstrate an improvement in attitude toward school as indicated by results on a 5-point scale inventory to measure interest in continuing education beyond their present grade, tabulating growth from pre-to-post gaining one scale point or more.

Project CARIBE did not provide OREA with any Likert scale questionnaires. OREA was therefore unable to assess this objective.

Career Advisement

The project proposed two objectives for career advisement:

- All graduating students will meet with the bilingual career specialists, bilingual grade advisors or bilingual guidance counselor for advisement at least three times during the school year.

- The program will organize at least one conference for students in which representatives of business and industry will present information on career options and skill requirements.

Both E.S.L. and content area classes included career guidance activities. Teachers and other staff reviewed a student's academic records prior to providing appropriate guidance. Students saw filmstrips and videos with a career theme and attended career fairs with guest speakers. Students went to the Career and Training Center and to college fairs.

The project director worked with the college advisor in order to provide participating students with information on admissions and financial aid. The project built a resource library of career and guidance textbooks and materials.

All the graduating students met with the career specialist as stated.

Project CARIBE met its objectives in career advisement, as it had done in the previous year.

Grade Retention

In the year under review, 3.7 percent (10) students were retained in grade. In the previous year, 36.2 percent (89) students were retained. This 32.5 percent difference was a marked improvement.

Dropout Prevention

Students received counseling regarding staying in school and taking responsibility for personal and academic success. Project personnel offered crisis prevention and intervention, and contacted parents when necessary.

Project CARIBE proposed the following dropout prevention objective:

- As a result of participating in the program students will have a lower dropout rate than non-program students.

At Bushwick High School, the dropout rate for project students was 4.8 percent and for mainstream students 5.9 percent. At John Jay High School, the dropout rate for project students was 1.4 percent and for mainstream students 7.0 percent.

At both sites, the dropout rate was lower for participating students than it was for the total school population, although overall rate of 3.0 percent represented an increase from last year's 1.3 percent.

Project CARIBE met its objective for dropout prevention.

Attendance

Project students received ribbons, pins, and trophies and were allowed to go on field trips as rewards for good attendance. Project staff attended conferences and workshops on how to improve attendance and how to involve parents in improving their children's attendance.

The project had one attendance objective:

- As a result of participating in the program, students' attendance will be significantly higher than that of mainstream students.

The overall attendance rate for participating students was 81.6 percent. At Bushwick High School, the attendance rate for participating students was 86.7 percent. Compared with the schoolwide rate of 81.5 percent, project students' attendance was better but not significantly so, and was lower than last year's 88.1 percent. At John Jay High School, the attendance rate for participating students was 77.1 percent. The schoolwide rate was 76.0 percent. Again, the attendance rate of participating students was better but not significantly so. However, the rate was higher than the 73.5 percent it had been last year.

The project did not meet its attendance objective. Last year, Project CARIBE partially met its attendance objective, meeting it at Bushwick High School but not at John Jay High School.

Placement in Gifted and Talented Programs

Project CARIBE does not target gifted and talented students but focuses on LEP students. Talented students in the program were given opportunities to become peer tutors, service aides, and interpreters in various offices throughout the schools. Talented students were also encouraged to participate in the International Festival, and those with writing skills worked on the project newsletter and literary magazine in various capacities.

Enrollment in Postsecondary Educational Institutions

Of the four seniors who graduated from John Jay High School, two will be attending college. Of the five seniors who graduated from Bushwick High School, four planned to attend college.

CASE HISTORIES

R. was born in Dominican Republic in 1972 and came to the United States in June 1991 to be with his parents and four brothers. R. entered school in the tenth grade and joined Project CARIBE the same year. His English LAB score upon entering was in the first percentile. His Spanish LAB score was at the 86th percentile, indicating that he was literate in his native language.

R. was an active participant in the project for two years. He went on the project's field trips to museums and plays and to Washington D.C. He was vice-president of the School Study Council and president of International House, and he was elected to the student Senate. His English LAB score reached the 37th

percentile. He has received career counseling and has made extensive use of computers to write reports and essays.

R. will graduate in June 1993. He is interested in pursuing a career in mechanical engineering. He has been accepted to CUNY's City College—the first in his family to go to college.

N. was a Mexican immigrant who came into the program in the fall of 1992. Although he was placed in the lowest level classes, he did poorly in all subjects. After discussing his problems, the project director, teachers, assistant principal, and E.S.L. coordinator decided that N. needed a literacy program. Such a program was instituted, and N. is doing much better.

STAFF DEVELOPMENT OUTCOMES

Project personnel and teachers of participating students participated in a series of activities sponsored by D.B.E. The project offered ten workshops focusing on language activities and teaching literature in students' native language.

Awareness of Pupil Needs and Problems

The project proposed one objective for awareness of pupil needs:

- Eighty percent of the staff in the program will demonstrate an increase in awareness of pupil needs.

Project CARIBE offered staff development workshops on the academic needs of bilingual students.

OREA-developed staff surveys in Spanish were to be used by the project to assess awareness of pupil needs and problems. OREA received a total of seven

completed surveys. Of these 85.7 percent (6) indicated an increase in awareness of pupil needs.

Although the percentage of those who indicated an increased awareness of pupil needs and problems was greater than the proposed 80 percent, the small number of responses make it impossible for OREA to draw any significant conclusions from them.

OREA was unable to evaluate the objective for staff awareness of pupil needs and problems, as was the case last year, because of insufficient data.

College Course Enrollment

The project proposed one staff development objective:

- Fifty percent of program staff members will enroll in at least one university course each semester.

During the 1992-93 school year, two Title VII project staff and seven participating teachers completed graduate credits in bilingual education during the year under review and received tuition assistance from Project CARIBE.

The project did not meet its staff development objective for college course enrollment.

## CURRICULUM DEVELOPMENT OUTCOMES

Project CARIBE did not propose any objectives for curriculum development but did adapt materials in the content area subjects of mathematics, science, and social studies, e.g. Historia Global 3 and 4, Preparación para el Examen de RCT en: Ciencias, Laboratorio de Biología Parte I and Matemática Fundamental.

PARENTAL INVOLVEMENT OUTCOMES

Project CARIBE proposed one parental involvement objective:

- The proportion of program students' parents who participate in Open School Day/Evening will be equal to or greater than the proportion of mainstream students' parents who participate in this activity.

The project offered parents workshops and E.S.L. classes. Project CARIBE notified parents by advertising activities on bulletin boards at both sites. Project staff also made telephone calls to parents. At Bushwick High School, in the fall, 23 percent of parents of participating students attended Open School Day/Evening, while attendance for parents of mainstream students was 21 percent. In the spring, project parents' attendance was 28 percent and mainstream parents' was 15 percent. At John Jay High School, in the fall, attendance of parents of participating students was 26 percent compared to 15 percent for the parents of mainstream students. In the spring, project parents' attendance was 28 percent compared to 15 percent for the parents of mainstream students.

The project met its objective for parental involvement at both sites. Last year, OREA had been unable to evaluate this objective for lack of data.

## IV. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### ACHIEVEMENT OF OBJECTIVES

Project CARIBE met its objectives for increasing students' familiarity with American culture and citizenship, career advisement, dropout prevention, and parental involvement. The project failed to meet its objectives in E.S.L., N.L.A., and staff development for enrollment in university courses. The project partially met its objective in the content areas. OREA could not measure the objective for growth of cultural pride, attitude toward school, and awareness of pupil needs and problems, because the project did not provide the required data.

Participating students in Project CARIBE showed academic progress. Of the 270 participating students, 260 (96.3 percent) were promoted to the next grade. The students showed gains in English language skills and in the content areas, particularly science and social studies. They showed gains in Spanish native language skills as indicated by their final course grades. The project director reported that most of the students, especially in Bushwick High School, come from low-income, single-parent families and have to work after school. Furthermore, they have had very little or no education in their native country, either due to the disruptive political situation, the paucity of resources, and/or the lack of schooling in the rural areas. When they come to the United States, these students cannot be placed in elementary school because of their age. These students find content area subjects particularly difficult.

Project services not only benefited the students academically but also increased their awareness of the importance of education. Attendance rates of participating students were higher and dropout rates lower than the schoolwide attendance and dropout rates.

A number of teachers attended graduate courses to increase their knowledge of bilingual education. In-service workshops proved useful to teachers and project staff.

Parents of participating students had better rates of attendance at Open School Day/Evening, and project CARIBE will continue its efforts next year to involve parents in the various activities available to them.

MOST AND LEAST EFFECTIVE COMPONENTS

One highly effective component of Project CARIBE was multicultural education. Active participation of students in the activities, enthusiastic attendance at the various cultural events, and the feedback from those administering the program attested to the strength shown in this area.

Least effective components of the project were E.S.L. and N.L.A. In addition, additional effort will have to be made in the content area subjects. At John Jay High School, tutorial services were not readily available, nor did the students have easy access to the project computer, which was kept locked in the closet for safety reasons. Resource specialists at both sites failed to provide reports of monthly activities to the project director.

## RECOMMENDATIONS TO ENHANCE PROJECT EFFECTIVENESS

- Assess reasons for the lack of growth in participants' English language skills. Consider offering intensive E.S.L. at the beginning literacy level, particularly for recent immigrants, and greater use of C.A.I.

- Explore additional techniques to increase students' acquisition of skills in Spanish N.L.A., possibly by initiating a peer tutoring component or using paraprofessionals to work with students during study halls or before and after school hours.

- Administer El Examen de Lectura en Español (ELE) to all program students enrolled in N.L.A. classes.

- Devote staff development sessions specifically to the teaching of mathematics to the target students.

- Distribute and collect the Likert scale questionnaires developed by OREA to evaluate objectives for growth of cultural pride, attitude toward school, and growth of teachers' awareness of pupil needs and problems.